UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/846,572	05/01/2001	Fabrizio Loppini	GB920000073US1	4857

7590   03/09/2005

Edward H. Duffield
IBM Corp, IP Law Dept T81/503
3039 Cornwallis Road
PO Box 12195
Research Triangle Park, NC 27709-2195

EXAMINER
NGUYEN, LE V

ART UNIT	PAPER NUMBER
2174	

DATE MAILED: 03/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 November 2004*.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-22* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-22* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some *   c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

1.   This communication is responsive to an amendment filed 11/18/04.

2.   Claims 1-22 are pending in this application. Claims 1 and 12 are independent

claims; and, claims 1, 2, 12 and 13 have been amended.

3.   The text of those sections of Title 35, U.S. Code not included in this action can

be found in a prior Office action.

Claim Rejections - 35 USC § 103

4.   Claims 1-3, 7-14 and 18-22 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Goh in view of Gallo et al. ("Gallo"), and further in view of Tanaka et

al. ("Tanaka").

As per claim 1, Goh teaches a GUI system for displaying a plurality of icons to a

selected user viewpoint, the system comprising means for depicting a desktop which

conceptually provides a three-dimensional surface for the icons, in which the three

dimensional surface is represented on a two-dimensional display device with the icons

are oriented to be facing the user viewpoint and means for supporting navigation of the

desktop by simulating a rotation of the desktop in three-dimensional space with the

location of the icons corresponding to their respective positions to other icons (Goh:

Abstract; figs. 5-6; *described and depicted is a three-dimensional workspace with real-*

time rotation with the icons oriented to be facing the user). Goh does not explicitly

disclose the surface to be a smooth, rounded surface. Gallo teaches displaying a

plurality of icons to a selected user viewpoint wherein the icons are oriented to be facing the user viewpoint and corresponding to their respective positions on a *smooth, rounded* surface (Gallo: figs. 1, 5 and 9; col. 6, lines 18-39; col. 11, lines 32-47). Therefore, it would have been obvious to an artisan at the time of the invention to include Gallo's teaching of displaying a plurality of icons to a selected user viewpoint wherein the icons are oriented to be facing the user viewpoint and corresponding to their respective positions on a smooth, rounded surface to Goh's teaching of displaying a plurality of icons wherein the icons are oriented to be facing the user and simulating a rotation in a three dimensional surface with the location of the icons corresponding to their respective positions to other icons in order to provide users with a maximal number of visible portals and that lends itself well to rotation upon any axis.

However, Goh and Gallo still does not explicitly disclose the icons being oriented to be facing the user viewpoint *irrespective of position on the surface*. Tanaka teaches a GUI system for displaying a plurality of icons to a selected user viewpoint, the system comprising icons being oriented to be facing the user viewpoint irrespective of position on the surface (fig. 20; col. 17, line 64 through col. 18, line 6; *displayed are multiple icons 192-194 on an orbit in virtual space wherein icons positioned farther away from the point of view are displayed smaller on the screen, e.g. icons 193 and 194 are displayed smaller than icon 192*). Therefore, it would have been obvious to an artisan at the time of the invention to include Tanaka's teaching of icons being oriented to be facing the user viewpoint irrespective of position on the surface to Goh and Gallo's

teaching of icons are oriented to be facing the user viewpoint in order to provide an additional user's point of view in virtual space.

As per claim 2, the modified Goh teaches a GUI system for displaying a plurality of icons to a selected user viewpoint in which the desktop is viewed at an apparent distance from the user viewpoint and the means for depicting includes means for calculating a viewing distance for each of the plurality of icons based on the apparent distance and the location of the icon on the three-dimensional surface and means for scaling without distortion the size of each of the plurality of icons by the relevant viewing distance with those icons on portions of the surface facing away from the desktop not being displayed (Tanaka: figs. 20, 22 and 24; Gallo: figs. 1, 5 and 9-11; col. 7, lines 25-27; Goh: figs. 5-6; col. 6, lines 29-32; *users control viewpoint, e.g. as can be seen from the comparison between figs. 5 and 6, icons are scaled according to users' viewpoint*).

As per claim 3, the modified Goh teaches a GUI system for displaying a plurality of icons to a selected user viewpoint comprising means for changing the apparent distance between the viewpoint and the desktop (Goh: figs 5-6; *desktop 500 of fig. 5 is viewed from a closer distance than desktop 500 of fig. 6*).

As per claim 7, the modified Goh teaches a GUI system for displaying a plurality of icons to a selected user viewpoint in which an icon is initially added to the center of the desktop by default (Goh: col. 6, lines 20-21).

As per claim 8, the modified Goh teaches a GUI system for displaying a plurality of icons to a selected user viewpoint in which the means for supporting navigation is

responsive to dragging the desktop with a pointing device in order to rotate the desktop (Goh: col. 6, lines 35-37).

As per claim 9, the modified Goh teaches a GUI system for displaying a plurality of icons to a selected user viewpoint in which the a means for supporting navigation that is responsive to dragging an icon beyond the desktop with a pointing device in order to rotate the desktop (Goh: col. 6, lines 35-37; *desktop is rotated via axes icon(s)*).

As per claim 10, the modified Goh teaches a GUI system for displaying a plurality of icons to a selected user viewpoint in which the plurality of icons are grouped automatically according to pre-determined criteria (Goh: col. 6, lines 20-21).

As per claim 11, the modified Goh teaches a GUI system for displaying a plurality of icons to a selected user viewpoint in which the three-dimensional the three-dimensional surface is (Gallo: figs. 1, 10 and 11; col. 6, lines 18-39).

Claims 12 and 13 are individually similar in scope to claim 2 and are therefore rejected under similar rationale.

Claim 14 is similar in scope to claim 3 and is therefore rejected under similar rationale.

Claim 18 is similar in scope to claim 7 and is therefore rejected under similar rationale.

Claim 19 is similar in scope to claim 8 and is therefore rejected under similar rationale.

Claim 20 is similar in scope to claim 9 and is therefore rejected under similar rationale.

Claim 21 is similar in scope to claim 10 and is therefore rejected under similar rationale.

Claim 22 is similar in scope to claim 11 and is therefore rejected under similar rationale.

5.   Claim 4-6 and 15-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Goh (US 5,678,015) in view of Gallo et al. ("Gallo"), and further in view of Tanaka et al. ("Tanaka").

As per claim 4, although the modified Goh teaches a GUI system for displaying a plurality of icons to a selected user viewpoint comprising a means for storing the position of each of the plurality of icons, in which the position is stored as a two-dimensional co-ordinate relative to the display device (Goh: col. 6, lines 25-28; col. 6, line 63 through col. 7, line 7; col. 9, line 43 through col. 8, line 13), the modified Goh does not explicitly disclose storing the position of each of the plurality of icons in an array. Official Notice is taken that the use of storing data values, such as the position of an icon, in an array is well known in the art and considered to be fundamental to data structures, and, in turn, a major fundamental of computer programming. Therefore, it would have been obvious to an artisan at the time of the invention to include storing the position of each of the plurality of icons in an array of a GUI system for displaying a plurality of icons to the modified Goh's means for storing the position of each of the plurality of icons so that data values of the same type may be referenced by a singular array name.

As per claim 5, the modified Goh teaches a GUI system for displaying a plurality of icons to a selected user viewpoint in which the means for supporting navigation comprises a means for determining a new two-dimensional co-ordinate for each of the plurality of icons following rotation of the desktop and a means for updating the array accordingly (Goh: col. 6, lines 3-28).

As per claim 6, the modified Goh teaches a GUI system for displaying a plurality of icons to a selected user viewpoint in which the means for determining comprises a means for transforming the two-dimensional co-ordinate of each of the plurality of icons into a three-dimensional co-ordinate, a means for changing the three-dimensional co-ordinates based on the rotation of the desktop and a means for transforming the changed three-dimensional co-ordinates into a new two-dimensional co-ordinate for each of the plurality of icons (Goh: col. 6, lines 3-42).

Claim 15 is similar in scope to claim 4 and is therefore rejected under similar rationale.

Claim 16 is similar in scope to claim 5 and is therefore rejected under similar rationale.

Claim 17 is similar in scope to claim 6 and is therefore rejected under similar rationale.

Response to Arguments

6.   Applicant's arguments with respect to claims 1-22 have been considered but are

moot in view of the new ground(s) of rejection, except for the following arguments,

which have been fully considered but are deemed not persuasive:

Goh shows no icons facing the user.

The examiner disagrees for the following reason(s):

Goh's icons are placed such that the front is displayed toward the user's direction

and according to users' directive (figs. 5-6; *users have a view of icons being displayed*

frontward). Therefore, Goh's teaching of icons facing the user is consistent with the

definition of facing as "to be turned or placed with the front toward a specified direction"

(*Micorosft Bookshelf Basics*, in accordance with *The American Heritage Dictionary of*

the English Language, 3rd Edition).

Furthermore, the Office notes that applicant did not contest the factual assertion

set forth under Official Notice in paragraph two of section six of the Office Action of

9/2/04.

Conclusion

7.   The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure.

Robbins (US 6,819,344 B2) teaches a visualization of multi-dimensional data

having an unbounded dimension.

Minakuchi et al. (US 6,628,313 B1) teach an information retrieval method an apparatus displaying together main information and predetermined number of sub-information related to main information.

Inquires

8.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Lê Nguyen whose telephone number is **(571) 272-4068**. The examiner can normally be reached on Monday - Friday from 7:00 am to 3:30 pm (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kristine Kincaid, can be reached on (703) 308-0640.

The fax numbers for the organization where this application or proceeding is assigned are as follows:

(703) 872-9306 [Official Communication]

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

LVN
Patent Examiner
February 26, 2005

KRISTINE KINCAID
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100